

Information Technology Strategic Plan for The North Carolina Department of Correction October 1, 2008

Executive Summary

Correction is the largest state agency in terms of employees. It also has one of the most extensive physical plants, with about 80 prisons and nearly 500 total locations. It runs 24 hours a day every day of the year. While everyone would agree that it is an important government function, it seldom emerges as the top priority from the executive or legislative branches. However, unfortunate events this year have focused interest of all three branches on improved data sharing among criminal justice agencies, state and local, and getting the right information, and very current information, to Correction and its probation officers is central in that focus.

For several years, we have been advocating for the need to refresh our OPUS offender management application, and we have had some small success in getting planning funding for that effort. Improving OPUS has now taken on more urgency. This involves connecting important data flows from courts and other criminal justice partners. It also involves presenting caseload data in ways that highlight actions an officer needs to take. Efforts around OPUS improvements are an important area for us in the next few years.

Opportunities for IT to help in cost control are also a focus for our projects. We are trying to develop a competency in video for telemedicine, distance learning, and court appearances. Being able to do these activities remotely is an easy business case to make, as this reduces high transportation costs and significantly increases staff and community safety.

Finally, almost a quarter of Correction's annual budget is devoted to inmate health care. We run this health care system with only minimal OPUS functionality...we record a very basic initial health rating, we schedule appointments, we do some utilization review, we interface to pharmacy. We operate what amounts to a large HMO with an included hospital, but we lack the automated health care management system one would normally find in that kind of operation. This is an area where we will try to improve our technology in the next few years.

Major Factors Influencing the Plan

Unfortunately, offender management, whether that relates to prison inmates, or to offenders being supervised in the community, continues to see steady growth. The cost to the taxpayers has become a major use of funds in the State's annual budget. North Carolina is not alone in this. So corrections agencies all around the country are redoubling their efforts on transition and reentry...basically focusing increasing effort on getting offenders the right set of treatments, education, skills training and job experience that helps them stand the best chance of succeeding as citizens.

IT supports this encompassing view of an offender by providing a tightly integrated offender management application (OPUS) with broad functionality, arrayed around a single, rich database. This helps our staff answer the question, "what are all the things I need to do to help make this offender successful once he has finished his sentence?" OPUS is powerful but aging. The data is rich and the database is robust, but there are opportunities for an easier user interface that takes less training, and an improved workflow that helps busy staff see the most important tasks they need to address each day.

Even though we improve our ability to move offenders through the system and give them a set of skills that can make them successful, the offender population is increasing, and so we need to be watchful of high cost areas, especially those costs that are outpacing normal inflation in society generally. Good examples include health care costs or fuel costs.

While we have limited control over health care cost generally, we think IT could offer management tools that help us track what we use, what inmate got the services, and what health care professional authorized the services. Better data here could point the way toward cost control opportunities. Currently, our OPUS application has limited functionality in the medical records area; we are looking at improvements there as a part of refreshing our OPUS application.

Similarly, we can't control the cost of fuel, but we think that technology may offer opportunities to do certain activities remotely rather than transporting inmates or transporting staff. So we are resolved to become good at video technologies, and to use that skill for video court appearances (inmates), remote health care (inmates), and distance learning (inmates and staff).

Current Situation and Desired State of Major Applications, Infrastructure Assets, Personnel, Projects and Management Functions

Applications

The Department operates its business primarily using a single, major offender management application known as OPUS. This mid-1990's green-screen application has proved very durable. It provides a wealth of data, and that data is stored in a robust relational database. But the user interface of the application is coming to the end of its useful life, and as we go about refreshing this application, there are opportunities for workflow improvements and streamlining of business rules. We have done some excellent work in providing web-based tools to access the data, and these have the effect of extending OPUS' useful life.

Other agencies seem to have a set of applications, perhaps less integrated and more severable than our OPUS system that they use to run their agencies. When they need to refresh one of the applications in their portfolio, they have an easier job of explaining what the business functions of that application are; because the functionality is more limited, they typically are asking for less money to do the refresh.

One difficulty we are having in making the business case for an OPUS refresh is frankly that the application has such a wide array of functional areas, from sentence calculation to bus transportation to health care to jobs. A graphic illustrating this is provided as an appendix. All of these functions draw data from, and write data to, the single relational database. We have found tremendous power in using this unified data store to paint a complete picture of an offender. It supports the critical agency mission of trying to get offenders skilled and prepared to become productive citizens who don't come back to prison, because it lets us see a whole picture of the person, and do the best job of seeing what they need. But it has been a detriment in explaining the need to refresh OPUS, because we have trouble explaining all OPUS does, how comprehensive it is, and consequently, saying how much it will cost or how long it will take. We are working to tell this story better.

Infrastructure Assets

Over the last few years, our overall infrastructure improvement has been a story worth telling. We successfully implemented ESAP. We have managed to establish disaster recovery for most of our critical systems (OPUS, our most critical, runs on the State mainframe, and has always been well-covered). We have improved our security posture. We have upgraded our data circuits to our many facilities. We have upgraded our switches and structured our facility

cabling. We have found funds to implement a four-year refresh cycle for our desktops and laptops.

We see changes coming in using this improved infrastructure in non-traditional ways. Our agency runs a large, geographically dispersed physical plant, with almost 80 prisons. We are slowly beginning to use the network for remote monitoring of building functions, as well as remote security cameras. This brings IT into coordination with both the Engineering staff of the agency, as well as the physical security staff...new territory for us all.

Personnel

As one of the three largest state agencies, Correction has always used a significantly smaller IT staff than would be expected. This lean staff has served us well in most regards, and we think that the folks we do have are high-quality.

If we are successful in making the case to begin refreshing OPUS in earnest, one of the challenges will be how to find, house and manage the requisite staff increase during the project.

Our network group also presents a challenge. Staffing here has been static for a number of years. We have over 20,000 employees in the agency. Enterprise projects like BEACON are driving the percentage of employees with computers ever-higher. Although we have been successful in finding funds to put desktops on a four-year replacement cycle, the manpower to do this essentially never-ending project comes from contract staff funded by lapsed salaries, vulnerable to current budget cuts. Although we need to add full time positions throughout the network group, the timing and scope of the IT Consolidation effort has created a degree of uncertainty that hampers our ability to add staff.

Projects

We have begun a project management office for the agency. It is housed in IT, and currently staffed with two full-time employees. Additionally, we have begun to employee contract project managers as needed.

We would like to see more benefit from the State's enterprise project management process and toolset. We have had candid conversations with the EPMO, and do see the beginning of some improvements. But we still don't find the Tool, either in its project management role, or its portfolio management role, as something truly useful in our serious efforts to try and really look at projects and deal with the things that need to be dealt with. Nor have we really found the portfolio information we have entered a help in thinking about our OPUS refresh issues, or in preparing a plan like this. We do think the idea is right...let's improve the execution.

Management Functions

We are maturing in this area. The agency has long had business officers for the major operating divisions. In the last several years, we realized that more and more financial questions involved IT, and that the enterprise activities we were involved in (PC refresh, as an example) had important financial aspects. We have now added a business officer to support the IT function, and this position is increasingly involved in enterprise-level financial decisions for the agency.

Major Initiatives and Investments

Program to Renew OPUS

Given the current economic outlook, it appears there will be very little new money available in the near term for new initiatives. Consequently, we need to be focused here on the one or two critical efforts for the agency, and gaining and maintaining some sort of momentum that puts us solidly on a path to renew OPUS has to be the top priority.

With the guidance and agreement from OSBM and the EPMO, we have structured this effort at a program, which anticipates that the renewal effort will last over several years, and be done as a collection of projects. We currently have funding for a planning effort. This will set out an approximate cost for the entire program of improvements, a timetable, the order in which we will address the various business functions, and a first production effort, centered around the intake process, which will prove out the architecture.

We have said over the years that the OPUS functionality for prisons, which operate out of fixed locations and tend to be more data-driven, is probably superior to that of probation and parole, which are more mobile, and whose data tends more toward case notes along with their data. Events over the past year have increased the urgency to improve the toolset for probation officers, and so we already are doing OPUS work there, and looking at how we can move their functionality up in the priority order. Making new connections to other criminal justice agencies, pulling pertinent data into OPUS, and giving officers a “dashboard” type of view to their caseload, which will point out offenders that need particular actions, is critical.

As part of this effort, we are looking at the increasingly available mobile broadband coverage, and the power of smartphones. We are investigating the best ways to deliver functionality to the mobile probation officer that meets the business requirements of portability, immediate data recording, and access to critical information instantly regarding their caseload of offenders. So how we deliver this renewed part of OPUS will take all that into consideration.

We are also watching and trying to be engaged with the Data Integration effort. We see great potential for the data integration effort to provide an array of web services that we can use to draw data into our OPUS dashboard presentation. We also see potential to use the analytic capability to prioritize matches of offenders when the identification information is imperfect.

Elsewhere in this Plan, we have noted that one of the remaining untapped areas is medical records. This is such a cost driver for the agency that we are not sure we can afford to move through an OPUS renewal in a strict sequential fashion. We need to get to work on doing something in health care. So we may seek planning money on how to incorporate electronic medical records into OPUS. That would put us on a path to knowledgeably build or buy this functionality in upcoming years.

Two other initiatives should be mentioned:

NC Mail

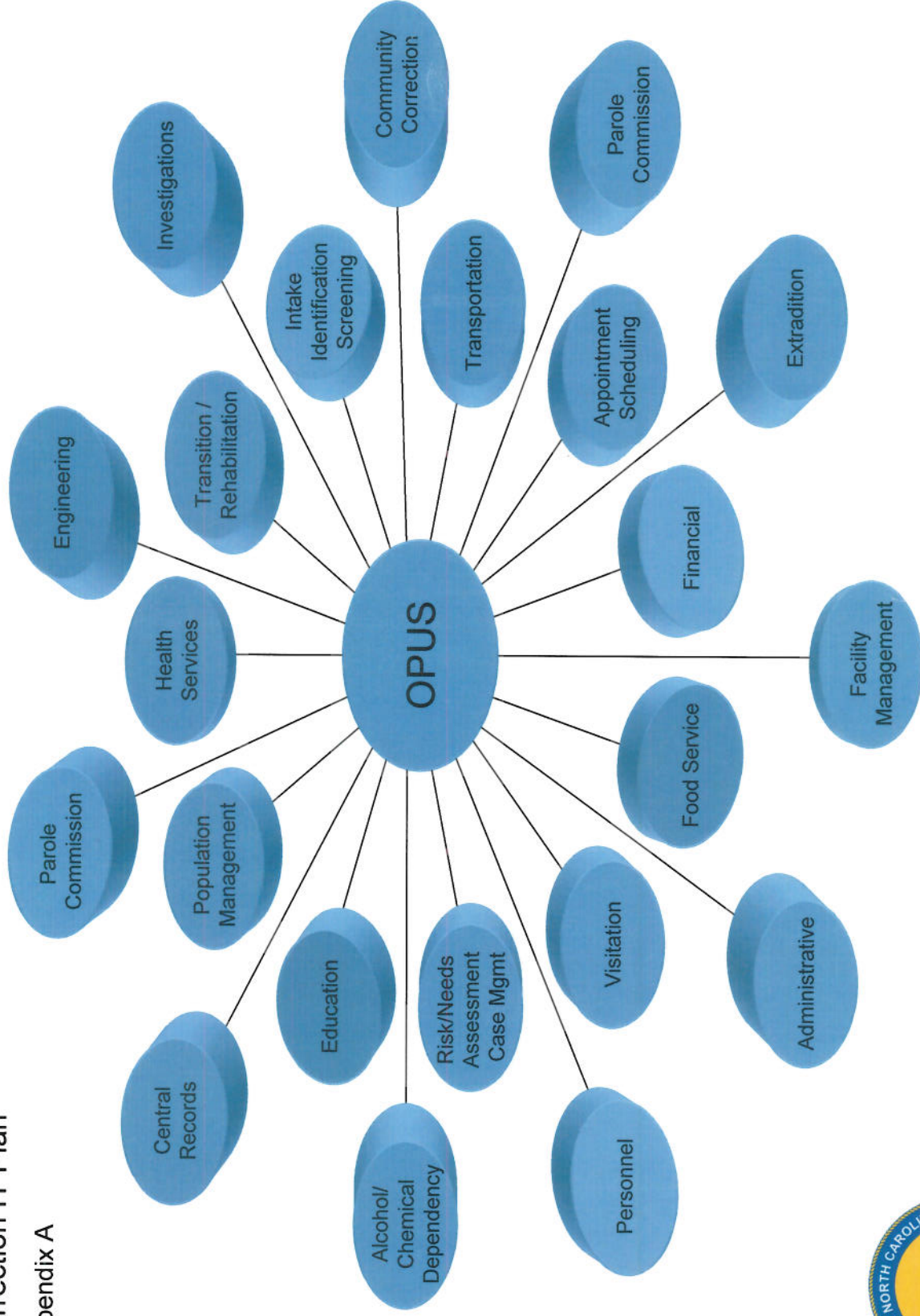
We continue to be interested in migrating our agency to NCMail. We are seeing increasing requests for discovery activities, and archiving issues continue to grow more complex. Either upon consolidation, or as part of the recent General Assembly direction, we will be moving to NCMail, so we would prefer not to try and assemble a toolset to deal with discovery and archive for our present Groupwise system.

Video Infrastructure

We have made the case in this Plan that there is a business case to become adept users of video to deal with telemedicine, distance learning, and court appearances. In the more distant future, we may also look at visitation. As we finish current pilot efforts, we will be looking at expanding our video infrastructure.

Correction IT Plan

Appendix A



OPUS Business Functions

